HURT & PROFFITT
INCORPORATED

DESIGN SPECIFICATION

FOR THE

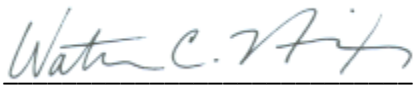
ABATEMENT OF

ASBESTOS-CONTAINING BUILDING MATERAILS

Site Address:
709 Patton Street
Danville, Virginia

PREPARED FOR:
City of Danville
Mr. Mike Burton
427 Patton Street, Room 208
Danville, Virginia 24541

PREPARED BY:



Walter C. Nixon
VA DPOR Asbestos
Project Designer License
No. 3305001148
Exp: 3.31.2014

2524 LANGHORNE ROAD
LYNCHBURG, VA 24501
800-242-4906 TOLL FREE
434-847-7796 MAIN
434-847-0047 FAX
www.HandP.com

INTRODUCTION

This asbestos abatement design specification has been written in accordance with local, state and federal guidelines for the safe handling / removal of asbestos-containing materials from 709 Patton Street, Danville, Virginia. The site is planned for full demolition at the completion of the abatement process. The design is for the explicit use by the City of Danville. A copy of Mr. W. Chris Nixon's Virginia DPOR Designer License is enclosed for your review.

The site is located at 709 Patton Street in Danville, Virginia. At a minimum the following regulations will be maintained as the Virginia Administrative Codes (VAC) refers to each throughout:

EPA 40 CFR part 763 AHERA

EPA 40 CFR part 61m NESHAP

OSHA 29 CFR 1910.1101 Asbestos

OSHA 29 CFR 1910.141(d)(3) Showers

OSHA 29OSHA 29 CFR 1910.134 Respirator Protection

Virginia DPOR Title 54.1 Chapter 5 Asbestos Licensing Regulations

Furthermore, this design is based upon a comprehensive asbestos-containing materials pre-demolition survey conducted by Hurt & Proffitt, Inc, dated October 14, 2013.

The asbestos abatement must be performed prior to the complete demolition of the 3 story building, which includes a 1st floor front, 2nd floor rear and a full basement/lower level. Specific actions will have to be coordinated for seamless transition from pre-cleaning, to abatement activities, to complete demolition.

This asbestos abatement design was written to help the City of Danville accomplish the safe removal of asbestos-containing building materials and procure bids from licensed asbestos abatement contractors.

The project, owned and/or managed by the City of Danville, is detailed in timing and scope. Portions of the enclosed design will be performed simultaneously with the demolition of specific areas of the building, whichever is deemed safest to life and health of personnel that will be working inside the facility as part of this project.

The contractor will perform each task within this design according to State and Federal regulations at all times.

Asbestos Abatement Design
709 Patton Street, Danville, Virginia

This asbestos-containing materials abatement protocol will be followed prior to the demolition of the structure – designated "Sections A, B, C & D".

Floor Designations

Section A= Basement

Section B=First Floor

Section C= Second Floor

Section D= Roof System

Scope of Work:

Removal and disposal of the following asbestos-containing building materials prior to building demolition.

Material	Quantity
HVAC Vibration Joint Clothe (Friable)	Section A-10 +/- Square Feet
Floor Tile and Associated Mastic (Cat. I Non-friable)	Sections A, B & C-3,500 +/- Square Feet
Exterior Window Glaze (Cat. II Non-friable) and Exterior Window Caulk (Cat. I Non-friable)	Sections A, B & C Each Window
Cove Base and Associated Mastic (Cat. I Non-friable)	Section B & C- 200 +/- Square Feet
Roof Flashings, Cements and Sealants (Cat. I Non-Friable)	Section D-1,000 +/- Square Feet

ALL QUANTITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO BID

Notifications:

The Contractor will be responsible for all fees and notifications to the Virginia Department of Labor and Industry (DOLI) twenty (20) days prior to abatement start and to the United States Environmental Protection Agency (EPA) Region III, ten (10) days prior the abatement start. The notification to the Virginia DOLI, must be displayed on the project work site throughout the abatement process. If changes to the work schedule occur during the abatement effort, the Contractor will be required to provide proof of the amended notifications of change for both the DOLI and the EPA.

Set-up:

Prior to asbestos abatement activities the following will be performed throughout/for each section, when possible

1. Non-asbestos containing/non-structural building components will be cleaned by wet wiping and HEPA vacuuming and moved out of each Section for reclamation or disposal, prior to creating a regulated work area within that section.
2. Asbestos-containing debris (friable or non-friable) encountered during Task 1 will be removed during the initial cleaning from that Section of the facility, and disposed of as required by State and Federal regulations in a licensed landfill, regulated by the Virginia Department of Environmental Quality (VADEQ).
3. "Danger Asbestos Caution" tape will be strung in place surrounding each Section during abatement activities until required clearance and/or re-occupancy has been allowed through visual inspection or clearance sampling by a Third Party Project Monitor/Inspector.
4. Critical barriers will be placed over all windows / doors where required within each Section that asbestos removal is to take place.
5. A personnel decontamination unit will be erected with an operational shower, hot water and cold water will be provided as required by OSH 29 CFR 1910.1001.
6. Negative air units will be installed and exhausted to the outside of each Section, where feasible, ie: basement floor, Section A, etc.
7. The number of negative air units to be used will be determined by the work area configuration and the following formula: ie: basement boiler room, office areas, etc.

$$\frac{\text{Volume } (ft^3)}{(15^*)\ (\text{Capacity of unit } (ft^3/\text{min}))}$$

*15 = the recommended air exchange every 15 minutes.

Decontamination Chamber: (OSHA Class I & II Abatement Activity):

1. The entrance to each regulated work area will be provided with a personnel decontamination chamber with a working shower providing hot and cold water from a portable water heater. Each stage of the decontamination chamber will be separated by an air lock; Clean Room, Shower and Equipment/Dirty Room.
2. Disposable 6 – mil polyethylene ACM bags will be placed in each dirty room of each 3 stage decontamination chamber. The bags will be utilized for the disposal of the disposable protective suits worn be each worker as they exit the regulated work area(s);
3. Soap will be provided and stored in the shower stage, which will be;
4. Disposable towels will be provided and placed in the clean room at the shower exit;
5. Chairs and/or benches will be provided in the clean room;
6. Storage areas will be provided for each worker to store personal items and street clothes;
7. Supervisor and worker licenses, state and federal notifications will be posted near the entrance of the decontamination chamber;

8. Only Virginia Department of Occupation and Regulation (DPOR) asbestos licensed workers and supervisors will be allowed to enter the regulated work area through the decontamination chamber.

Worker PPE:

Asbestos-trained personnel entering each regulated work area will don the following Personal Protective Equipment (PPE):

1. Disposable suits, Tyvek ® or equivalent, which will include a hood and booties;
2. Full or ½ face respiratory protection with P-100 filter cartridges;
3. Safety glasses will be worn with ½ face respirators;
4. Rubber disposable gloves or equivalent for tasks to be performed;
5. Hard hats.

NO STREET CLOTHES WILL BE ALLOWED TO BE WORN INTO THE WORK AREA

All abatement activities will be performed by Virginia DPOR licensed asbestos abatement supervisors and workers. Each worker will comply with all OSHA, EPA and State of Virginia regulations.

OSHA Personal Monitoring:

Personnel will be provided with OSHA required personnel monitoring devices to be paid for by the employing contractor and not the City of Danville, One (1) worker for every four (4) workers inside the regulated work area shall don a personal monitoring pump. The personal monitoring samples shall be collected and analyzed daily. The air sample results shall be posted onsite within 24 hours of collection. At a minimum one (1) 30 minute excursion limit (EL) shall be run at the height of abatement activities daily. At a minimum (one) 8 hour sample shall be run to establish the 8 hour Time Weighted Average (TWA) for each work shift. NIOSH method 7400 analysis for Phase Contrast Microscopy (PCM) shall be utilized by the laboratory to determine the presence of potential asbestos fibers.

Area environmental monitoring samples shall be provided by Hurt & Proffitt, Inc

HVAC Joint Cloth and Mechanical Equipment Removal:

To remove the boiler and exhaust materials within Section A (Basement); a standalone negative pressure enclosure will be constructed of two (2) separate layers of polyethylene sheeting. Each layer of polyethylene sheeting will be independent of one another and all seams will be staggered.

Entry into the work area will be through an OSHA approved decontamination chamber based on the amount/size and scope of materials to remove from the regulated work area. Once the negative pressure differential within the regulated work area has reached -0.002 water column, per manometer, a fine mist of amended water will be sprayed on all surfaces that abatement will take place. Gross removal of all ACM, friable or non-friable, associated with the boiler, exhausts, gasket materials, and pipe insulations with associated fittings, that happen to be within the same vicinity of the boiler within Section A, will take place while the negative pressure enclosure is in place. The negative pressure exhaust will remain on throughout the duration of the abatement activities within that regulated work area, until clearance / re-occupancy has been granted by a licensed project monitor. Removal of asbestos-containing materials from their substrates will be done using hand-operated tools, all the while making sure that all materials being removed are kept adequately wet by EPA definition.

ACM waste will be placed in 6-mil polyethylene bags and goose-necked, the inner bag will be cleaned and placed into a second 6-mil polyethylene bag and goose necked, sealed and labeled. Once the bulk of the asbestos-containing materials have been removed, the remaining substrate, enclosure walls and floors of the negative pressure enclosure will be wet wiped and HEPA vacuumed. All rags used during this process will be used only once and then disposed of as asbestos waste.

Once all asbestos-containing materials within the negative pressure enclosure in Section A have been removed from their substrate(s) and visually inspected as part of clearance monitoring, a lockdown/encapsulant spray will be applied to all surfaces within the negative pressure enclosure, including the polyethylene sheeting. Once the lockdown/encapsulant has dried completely, clearance air sampling will be performed. Once clearance has been achieved and re-occupancy granted to others, the polyethylene sheeting, making up the negative pressure enclosure, will be removed and disposed of as asbestos waste.

Vinyl Asbestos Tile (VAT) with Mastics and Cove Base with Mastic Removal:

Removal of VAT and Cove Base will be accomplished using flat edged heavy-duty scrapers. A fine mist of amended water will be applied to the VAT and/or Cove Base during the advancement of abatement activities. The heavy-duty flat edged surface of the scraper will be run under the VAT or the Cove Base between and above the structural substrate (floor or wall).

Floor tiles and/or the Cove Base will be collected and placed into double polyethylene bags or lined containers. ACM waste will be placed in double bags and goose-necked (both the inner bag and outer bags separately), sealed and labeled.

Where applicable, after floor tile removal has been completed a chemical mastic remover will be applied to the floor and hand scrapped with squeegees to remove the mastic layer. The mastic will be absorbed with rags and/or other absorbing agent. Disposal of the mastic will consist of double goose necked bagging (separately) or lined impervious containers, sealed and labeled.

Window Caulk/Glazing Removal:

Exterior window caulk/glazing will be removed intact when possible. The windows will be removed from the outside of each Section when feasible. A polyethylene drop cloth will be placed below each work area to collect window caulk/glaze debris as it may fall to the ground. A fine mist of amended water will be sprayed on each window as it is being removed from the frame/structure. If removal of the entire window is not feasible prior to demolition of the building, the window caulk/glaze will be hand scraped from each window frame, once the frame has been deemed clean via visual inspection by the Third Party Project Monitor/Inspector the frame will be placed with non-asbestos-containing waste materials. The loose window caulk/glazing, including each polyethylene drop cloth will be placed immediately upon completion of window frame cleaning, into a 6-mil ACM bag with warning labels affixed. The asbestos waste debris will not be allowed to accumulate within each of the regulated work areas. Each single waste bag will be sealed by goose necking and wrapped with duct tape. Prior to leaving the regulated work areas the single ACM caulk/glazing waste bag(s) will be placed in a second bag and goose-necked (both the inner bag and outer bags separately), sealed and labeled. Sealed bags will be stored in a lockable container lined with two (2) layers of 6-mil polyethylene sheeting.

Roof Flashing Removal:

Roofing materials from Section D will be sprayed continuously with water throughout the removal process and will be performed utilizing safe work practices, ie: harness and tackle, fall protection, etc. The intact ACM roof materials will be removed with hand tools, and placed in the lined dumpster throughout the process. Roofing debris will not be allowed to collect on the ground. At the end of each work shift, the site will be inspected by the Senior Site Supervisor and the Third Part Project Monitor, debris found will be cleaned up promptly.

ACM Storage, Transportation and Disposal (All Forms):

Asbestos-containing materials removed from the separate regulated work areas from the building will be segregated as they are removed, ie: friable with friable, non-friable with non-friable, etc. If a non-friable is bagged up with a friable material, ie: transite panel with ceiling/wall joint compound materials from the same regulated work area, that bagged material will be

labeled as a friable material and placed with the friable materials stored on site awaiting disposal.

Temporary on-site storage of ACM waste materials will be held in secure storage containers. The interior of each storage container will be lined with two layers of 6-mil polyethylene sheeting. The exterior of the container will be placarded and/or labeled and identified as containing asbestos waste materials.

Friable ACM will be disposed of as asbestos waste at a secure landfill that is permitted by the State of Virginia to manage friable asbestos-containing waste. The ACM waste will only be hauled by permitted waste haulers that have been trained to identify the presence of asbestos if a spill occurs during transport to the landfill. The haulers will be provided applicable shipping documentation to legally transport the waste. A copy of the fully executed shipping document will be provided to the City of Danville for review as verification that the material was packaged, transported and delivered to the designated receiving facility/landfill. The executed shipping documentation will bear the signatures of designated personnel responsible for the packaging, transportation and receipt of the ACM waste and it will indicate the address from which the material was removed, and City of Danville, Virginia as the generator.

Only asbestos waste that has been properly encapsulated/containerized will be transported from the point of generation. Transport will be done so with covered vehicles or locked containers. Transportation of the asbestos waste will be in conformance with the U.S. Department of Transportation Regulations 49 CFR Parts 172 and 173.

Transportation and disposal of asbestos waste will be in conformance with the USEPA NESHAPs Regulations 40 CFR Part 61 and all applicable State rules and regulations. Asbestos-containing waste will be transported to disposal facilities that are permitted by the State of Virginia and are approved to accept friable and/or non-friable asbestos waste. All waste disposal manifests must be provided to the Third Party Monitor within 35 days of disposal completion.

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
03-31-2014

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
3305 001148

VIRGINIA ASBESTOS LICENSE
PROJECT DESIGNER LICENSE

WALTER CHRISTOPHER NIXON
175 SAGE LN

MADISON HEIGHTS, VA 24572

Gordon N. Dixon, Director

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)